

PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038631	MEC002-VU	6	1	Net 30	M7075T6S4.000X3.000	7075-T6S Sheet 4.000" Thick X 3.000" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				24	1/8/2018	✓ 24		S029879	Stock	1/6/2018	\$ 82.35 / ft	3		\$1,976.40	Metaux Castle
		7			M7075T6S4.000X4.000	7075-T6 Sheet 4.000" X 4.000" cul to size: 32" LONG : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				27		✓ 27		S029880	Stock	1/6/2018	\$ 94.50 / ft	3		\$2,520.32	Metaux Castle
										Total:	51	51									\$4,496.72

Plex 1/8/2018 9:09 AM Dart.Plouffe.Sonia

Status: Receiving
 Part: **M7075T6S4.000X4**
 Created: 1/8/18 9:07 AM DART.PLOUFFE.SON

 Serial No: **S029880**

Status: Receiving
 Part: **M7075T6S4.000X3**
 Created: 1/8/18 9:07 AM DART.PLOUFFE.SON

 Serial No: **S029879**

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3468241

Ship From: A. M. CASTLE & CO. 14001 ORANGE AVENUE PARAMOUNT, CA 90723 USA	Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7
Date Shipped 21-DEC-17	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier YRC
Shipment Details		Final Destination Branch - TOR	
Order No 4984539	Line No 1	Item No 752190.MO	Description 4.0000.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT RECTANGLE TO 48.5 IN (+ .1250/- .0000 IN) X 3 IN (+ .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12
Purchase Order No 38631	Part Number	Ordered Qty 6.00 PCS	Invoice Qty 6.00 PCS
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS		
Delivery No. 121501802	Mill/Source CONSTELLUM ROLLED PRODUCTS	Heat Number  9 6 0 0 8 8 6	PCS 6
		Width (IN)	Length (IN)
			Shipped Qty(LBS) 361.8623

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Date Printed: 21-DEC-2017 05:30:39 PM

INTERORG TRANSFER
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CERTIFICATE OF CONFORMANCE

Reviewed by Authorized Casille Metals Representative:

Page 2 of 2

Date: Name:



Reviewed by Authorized Casille Metals Representative:	
Date:	Name:

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CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

S A M CASTLE & CO.
H 14001 ORANGE AVE.
I PARAMOUNT CA
P 90723
T US

S A M CASTLE
O 1420 KENSINGTON ROAD, SUITE 220
L OAK BROOK IL
D 60523
T US

A M CASTLE		110551463	4075	INCLUSION		Serial:20170707-0110551463	Pg 1 of 2
CUSTOMER PURCHASE ORDER NO. & ITEM 424642				Constellium ORDER NO. 207814			
ALLOY 7075	CLAD	TEMPER T651	GAUGE 4.00000 in 101.60 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	<p>CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA</p> <p><i>Steve Good</i></p> <p>Steve Good - Laboratory Manager</p>	
ITEM ORDERED SPEC PLATE, SAWED MILL. FINISH							
CUSTOMER SPECIFICATION AMS 4045K							
PART NUMBER 752190		B/L NUMBER 83547		DATE SHIPPED 07/10/2017			
WT. SHIPPED 8655.000 LB		NO. OF PIECES 000003		GOVT. CONTRACT NO.			
ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS: ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A AMS QQ-A-250/12A AMS STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE ASTM B209-14 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE							
Load Details							
Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot	
1001559281	2,885.000	1,308.613	9600886	01			
1001559284	2,885.000	1,308.613	9600886	02			
1001559285	2,885.000	1,308.613	9600886	03			
Lot: 9600886 <i>Good</i>							
Tensile - Room Temperature (US)							
Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)	Report
		Min	Max	Min	Max	Min	Max
LT	02	70.6	70.7	56.2	56.4	12.0	12.0
Tensile - Room Temperature (SI)							
Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)	Report
		Min	Max	Min	Max	Min	Max
LT	02	487	487	387	389	12.0	12.0





CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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P
T
O
A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

S
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L
D
T
O
A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE			110551463	4075	INCLUSION	Serial:20170707-0110551463	Pg 2 of 2		
CUSTOMER PURCHASE ORDER NO. & ITEM 424642				Constellium ORDER NO. 207814					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 4.00000 in 101.60 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	<p>CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA</p> <p><i>Steve Good</i></p> <p>Steve Good - Laboratory Manager</p>			
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH									
CUSTOMER SPECIFICATION AMS 4045K									
PART NUMBER 752190		B/L NUMBER 83547		DATE SHIPPED 07/10/2017					
WT. SHIPPED 8655.000 LB		NO. OF PIECES 000003		GOVT. CONTRACT NO.					
Chemistry (Actual)									
Core	SI 0.06	FE 0.16	CU 1.45	MN 0.06	MG 2.63	CR 0.20	ZN 5.69	TI 0.03	ZR 0.00
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER									
All material contained in this lot was cast and manufactured in the USA									
QUALITY TEXTS: AMC CA-15403E R 6									
<p>THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.</p> <p>CHEMISTRY BY OES: ARKSPARK</p> <p>CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT</p> <p>WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399</p> <p>WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557</p> <p>DUNS Number: 090570149; CAGE Code: 1YWLS</p> <p>Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.</p> <p>"END OF CERTIFICATION"</p>									
P-860-155D REVISED: 10 2014									

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3468241

Ship From:	Sold To:	Ship To:	Deliver To:				
A. M. CASTLE & CO. 14001 ORANGE AVENUE PARAMOUNT, CA 90723 USA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA				
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No			
21-DEC-17	ORIGIN	Prepaid	YRC	3468241-2			
Shipment Details	Final Destination Branch - TOR						
Order No	Line No	Item No	Description	Invoice Qty			
4984539	2	752190.MO	4.0000.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT RECTANGLE TO 4 IN (+ .1250/- .0000 IN) X 32 IN (+ .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	10.00 PCS 10.00 PCS			
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
38631	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS	10.00	10.00				
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
121501802	CONSTELLIUM ROLLED PRODUCTS	9 6 0 0 8 8 6		10			530.5656

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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Date Printed: 21-DEC-2017 05:30:39 PM

INTERORG TRANSFER
PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

Reviewed by Authorized Castle Metals Representative:

Date: _____

Name: _____

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John S. Sjogren



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO038631

Supplier:	MEC002-VU Metaux Castle P.O. Box 4090 Stn A Toronto ON M5W 0E9 Canada	PO No:	PO038631
		PO Date:	12/12/17
		Due Date:	1/8/18
		Purchase Order Revision:	
		Revision Date:	
		Ship-To Contact:	Lavoie, Chantal Phone: clavoie@dartaero.com
Ship To:	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	Via:	Ground
		Pymt Terms:	Net 30
		Freight Terms:	
		Special Comments:	

E-MAILED
DEC 13 2017

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S1.250X2.000	7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	48 ft	0 ft	48 ft	\$20.12/ft	\$965.76
2	M7075T6S6.000X0.250	7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	12 ft	0 ft	12 ft	\$20.75/ft	\$249.00
3	M7075T6S0.750X1.250	M7075T6S0.750X1.250 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	12 ft	0 ft	12 ft	\$16.45/ft	\$197.40
4	M7075T6S0.375X6.000	7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	24 ft	0 ft	24 ft	\$25.68/ft	\$616.32

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5	M7075T6S1.750X2.250	7075-T6 Sheet 1.750" X 2.250" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	48 ft	0 ft	48 ft	\$28.62/ft	\$1,373.76
6	M7075T6S4.000X3.000	7075-T6S Sheet 4.000" Thick X 3.000" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	24 ft	0 ft	24 ft	\$82.35/ft	\$1,976.40
Line Item Note cut in section of 4 ft									
7	M7075T6S4.000X4.000	7075-T6 Sheet 4.000' X 4.000" cut to size: 32" LONG : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	26.667 ft	0 ft	27 ft	\$94.500236/ft	\$2,520.04
Line Item Note 10 pcs cut at 32" lenght									
									Grand Total: \$7,898.68
Order Notes									
Procurement Quality Clauses									
A005 right of entry									
A012 chemical and physical test report									
A016 personnel qualification									
A017 raw material identification (as applicable)									
A026 certification of material conformance									
A041 quality management system									
A042 part notification by supplier									
A043 retention of quality documents									
A048 counterfeit parts avoidance, detection, mitigation and disposition program									
A049 supplier awareness									
Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.									

Plex 12/13/17 11:11 AM dart.lavoie.chantal

Chantal Lavoie

From: Desbiens, Marc <mdesbien@amcastle.com>
Sent: Wednesday, December 13, 2017 11:03 AM
To: Chantal Lavoie
Subject: RE: quote

Hi Chantal,

Sorry

7075-t6 bar 4" x 3" x 24 ft cut in section 4 ft \$ 82.35 Ft

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370

Customized Supply Chain Solutions for Your Metal Needs

From: Chantal Lavoie [mailto:clavoie@dartaero.com]
Sent: Tuesday, December 12, 2017 2:06 PM
To: Desbiens, Marc
Subject: RE: quote

Hi Marc,
For mat'l 7075-t6 plate 4 x 3 wow is it really 215.52 a ft.
Thanks
Chantal

From: Desbiens, Marc [mailto:mdesbien@amcastle.com]
Sent: Monday, December 11, 2017 1:59 PM
To: Chantal Lavoie <clavoie@dartaero.com>
Subject: RE: quote

Hi Chantal,

price an delivery on mat'l.

7075-t6 bar 1.250" x 2" x 12 ft \$ 20.12 Ft
70175-t6 bar 6" x 0.250" x 12 ft \$ 20.75 Ft
7075-t6 bar 1.250" x 2" x 36 ft \$ 20.12 Ft
7075-t6 bar 0.750" x 1.250" x 12 ft \$ 16.45 Ft

7075t6 bar 0.375" x 6" x 24 ft \$ 25.68 Ft
7075-t6 bar 4.5" x 5" x 12 ft cut in section 4 ft Regret, 4" max
7075-t6 bar 1.750" x 2.250" x 24 ft \$ 28.62 Ft
7075-t6 bar 4" x 3" x 24 ft cut in section 4 ft \$ 215.25 Ft
7075-t6 bar 4" x 4" x 10 pcs cut At 32" \$ 252.00 piece

These would all be cut from plate

All 3 weeks

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370
Customized Supply Chain Solutions for Your Metal Needs

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Chantal Lavoie

From: Desbiens, Marc <mdesbien@amcastle.com>
Sent: Monday, December 11, 2017 1:59 PM
To: Chantal Lavoie
Subject: RE: quote

Hi Chantal,

price an delivery on mat'l.

10/11

7075-t6 bar 1.250" x 2" x 12 ft	\$ 20.12 Ft
70175-t6 bar 6" x 0.250" x 12 ft	\$ 20.75 Ft
7075-t6 bar 1.250" x 2" x 36 ft	\$ 20.12 Ft
7075-t6 bar 0.750" x 1.250" x 12 ft	\$ 16.45 Ft
7075t6 bar 0.375" x 6" x 24 ft	\$ 25.68 Ft
7075-t6 bar 4.5" x 5" x 12 ft cut in section 4 ft	Regret, 4" max
7075-t6 bar 1.750" x 2.250" x 10 ft	\$ 28.62 Ft
7075-t6 bar 4" x 3" x 24 ft cut in section 4 ft	\$ 215.25 Ft
7075-t6 bar 4" x 4" x 10 pcs cut At 32"	\$ 252.00 piece -26.6664

These would all be cut from plate

All 3 weeks

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370

Customized Supply Chain Solutions for Your Metal Needs

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CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

S
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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110551463	4075	INCLUSION	Serial:20170707-0110551463	Pg 1 of 2
CUSTOMER PURCHASE ORDER NO. & ITEM 424642				Constellium ORDER NO. 207814		
ALLOY 7075	CLAD	TEMPER T651	GAUGE 4.00000 in 101.60 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	<p>CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA</p> <p><i>Steve Good</i></p> <p>Steve Good - Laboratory Manager</p>
ITEM ORDERED SPEC PLATE, SAWED MILL. FINISH						
CUSTOMER SPECIFICATION AMS 4045K						
PART NUMBER 752190		B/L NUMBER 83547		DATE SHIPPED 07/10/2017		
WT. SHIPPED 8655.000 LB	NO. OF PIECES 000003	GOVT. CONTRACT NO.				
ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS: ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A AMS QQ-A-250/12A AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE ASTM B209-14 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE						
Load Details						
Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001559281	2,885.000	1,308.613	9600886	01		
1001559284	2,885.000	1,308.613	9600886	02		
1001559285	2,885.000	1,308.613	9600886	03		
Lot: 9600886						
Tensile - Room Temperature (US)						
Direction	Tests	Ultimate (KSI)	Yield (KSI)	Elongation (%)	Report	
		Min	Max	Min	Max	Min
LT	02	70.6	70.7	56.2	56.4	12.0
Tensile - Room Temperature (SI)						
Direction	Tests	Ultimate (N/MM2)	Yield (N/MM2)	Elongation (%)	Report	
		Min	Max	Min	Max	Min
LT	02	487	487	387	389	12.0
P-860-155D REVISED: 10 2014						





CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE			110551463	4075	INCLUSION	Serial:20170707-0110551463	Pg 2 of 2		
CUSTOMER PURCHASE ORDER NO. & ITEM 424642				Constellium ORDER NO. 207814					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 4.00000 in 101.60 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager			
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH									
CUSTOMER SPECIFICATION AMS 4045K									
PART NUMBER 752190		B/L NUMBER 83547		DATE SHIPPED 07/10/2017					
WT. SHIPPED 8655.000 LB		NO. OF PIECES 000003		GOVT. CONTRACT NO.					
Chemistry (Actual)									
Core	SI 0.06	FE 0.16	CU 1.45	MN 0.06	MG 2.63	CR 0.20	ZN 5.69	TI 0.03	ZR 0.00
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER									
All material contained in this lot was cast and manufactured in the USA									
QUALITY TEXTS: AMC CA-15403E R 6									
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.									
CHEMISTRY BY OES: ARKSPARK									
CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT									
WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399									
WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557									
DUNS Number: 090570149; CAGE Code: 1YW19									
Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.									
"END OF CERTIFICATION"									
P-860-155D REVISED: 10 2014									

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70757654-000x3.000 PO / BATCH NO.: 038631/5029879
 DATE: JAN 08 2018

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 24"
 QUANTITY INSPECTED: 24"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.000
 THICKNESS RECEIVED: 3.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Am5 QQ-A-230</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat# 9100886</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>JAN 08 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

8
7
6
5
4
3
2
1
0

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
OR ASTM 4045
OR ASTM B209

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 4049
OR ASTM B209

△ PART NUMBER:
M7075T6S|TTT|W|WWW|
|THK|W|WWW|

WHERE "TTT" = THICKNESS (IN INCHES)
AND "W|WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)
EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

△ PREFERRED SIZE:
.750 BY 4FT BY 10FT FOR SHEET

A		B		C		D	
RELEASED 2017 JUN 19 ECN 17-574		RECEIVED 2017 JUN 19 ECN 17-574		RECEIVED 2017 JUN 19 ECN 17-574		RECEIVED 2017 JUN 19 ECN 17-574	
APPROVED DATE 17.05.05		APPROVED DATE 17.05.05		APPROVED DATE 17.05.05		APPROVED DATE 17.05.05	
DRAWN CP HAWKESBURY, ONTARIO, CANADA		CHECKED ML DRAWING NO. M7075T6S		MFG. APPR. LL		APPROVED WM TITLE 7075-T6 SHEET/PLATE SPEC NTS	
B ADD. REF. TO "PLATE, T651", FEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR 6-149)		A NEW ISSUE		REV. BY DATE		REV. BY DATE	
DESIGN DRAWN CP		RF DRAWING NO. M7075T6S		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		REV. B SHEET 1 OF 1 SCALE NTS	
C APPROVED DE APPR.		APPROVED DE APPR.		APPROVED DE APPR.		APPROVED DE APPR.	
APPROVED DATE 17.05.05		APPROVED DATE 17.05.05		APPROVED DATE 17.05.05		APPROVED DATE 17.05.05	

THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD.
NOT TO BE COPIED OR USED BY OTHER THAN THE CONTRACTOR
UNLESS AUTHORIZED IN WRITING BY DART AEROSPACE LTD.

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70757654.000x4.000

PO / BATCH NO.: 038631/5029880

DATE: JAN 08 2018

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 4.000

QUANTITY RECEIVED: 27"

THICKNESS RECEIVED: 4.000

QUANTITY INSPECTED: 27"

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>AMS QQ-A-250</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Part# 9600886</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-80</u> <u>JAN 08 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

